



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:

Reinhold HOLTKAMP, Sr. et al.

Title:

MULTIFLORESCENCE TRAIT IN AFRICAN VIOLETS

Appl. No.:

10/046,968

Filing Date:

January 17, 2002

Examiner:

Wendy C. Haas

Art Unit:

1661

TRANSMITTAL FOR RESPONSE

MS APPEAL BRIEF-PATENTS Commissioner for Patents P.Ö. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith is a Response to Notice of Non-Compliant Appeal Brief and Request to Accept As-Filed Papers in the above-identified application.

Small Entity status under 37 C.F.R. § 1.9 and § 1.27 has been established by a previous assertion of Small Entity status.

(1)

Extension for response filed within the first month:	\$120.00	\$0.00
Extension for response filed within the second month:	\$450.00	\$0.00
Extension for response filed within the third month:	\$1,020.00	\$0.00
[] Extension for response filed within the fourth month:	\$1,590.00	\$0.00
[] Extension for response filed within the fifth month:	\$2,160.00	\$0.00
EXTENSI	ON FEE TOTAL:	\$0.00
[X] Appeal Brief Under 37 CFR § 41.37	\$500.00	\$0.00
Extension and Appeal Brief fees		\$0.00
[X] Small Entity Fees Apply (sub	otract ½ of above):	\$0.00
	TOTAL FEE:	\$0.00

- [] Please charge Deposit Account No. 19-0741 in the amount of \$0.00. A duplicate copy of this transmittal is enclosed.
- A check in the amount of \$0.00 is enclosed.
- [X] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

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Attorney for Applicant



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Reinhold HOLTKAMP SR.

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RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF UNDER 37 C.F.R. § 41.37 AND REQUEST TO ACCEPT AS-FILED PAPERS UNDER MPEP § 503

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This paper responds to the Notice of Non-Compliant Appeal Brief mailed October 4, 2005. It is timely because it is filed within the shortened statutory period.

As explained below, a complete Appeal Brief was filed on September 2, 2005. Applicant respectfully requests that Examiner Haas withdraw the improper Notice of Non-Compliance and indicate on the record that no negative patent term adjustments will result due to the PTO's obvious error.

LISTS OF EXHIBITS

Exhibit 1. Copy of itemized and stamped Post Card of September 2, 2005.

Exhibit 2. Copy of as-filed Appeal Brief of September 2, 2005.

Exhibit 3. Copy of as-filed Appeal Brief from Public PAIR.

STATEMENT OF FACTS

On September 2, 2005, Applicant filed a complete Appeal Brief. As indicated in the itemized and stamp-returned Post Card, the as-filed Appeal Brief contains 29 pages. See Exhibits 1-2. Under MPEP § 503, "a postcard which itemizes and properly identifies the items which are being filed serves as *prima facie* evidence of receipt in the USPTO of all the items listed thereon on the date stamped thereon by the USPTO." Because a complete (*e.g.* 29 page) Appeal Brief was submitted to the PTO on September 2, 2005, as evidenced by Exhibits 1-2, the Notice of Non-compliance is inappropriate and should be withdrawn. Because Applicant is not in error, it is requested that an indication be made of record that no negative patent term adjustments will accrue due to the PTO's obvious error.

On October 4, 2005, the PTO mailed a Notice of Non-Compliant Appeal Brief. Specifically, Examiner Haas alleges "no section regarding Related Appeals or Interferences was included in the body of the brief." Upon receipt of the PTO'S Notice of Non-Compliance, Public PAIR (Patent Application Information Retrieval) was searched for a copy of the as-filed Appeal Brief. As shown in Exhibit 3, the as-filed Appeal Brief contains the complete 29 pages. Notably, page 2 provides "Related Appeals or Interferences." As indicated in the as-filed Appeal Brief at page 2, "There are no prior or pending related appeals, interferences, or judicial proceedings." Exhibits 2-3. Because the as-filed Appeal Brief complies with 37 C.F.R. § 41.37, Examiner Haas' Notice should be withdrawn. Because Applicant is not in error, it is requested that an indication be made of record that no negative patent term adjustments will accrue due to the PTO's obvious error.

As explained above, Applicant's Appeal Brief of September 2, 2005, complies with 37 C.F.R. § 41.37. Accordingly, the PTO is requested to withdraw the Notice of Non-Compliance and enter the as-filed Appeal Brief. Applicant awaits an indication that no patent term adjustments will accrue due to the PTO's error and delay.

CONCLUSION

The Appeal Brief of September 2, 2005 should be entered. An action on the merits is awaited.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Please direct all correspondence to the undersigned attorney.

Respectfully submitted,

Date

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Title: Multiflorescence Trait in African Violets Inventor: Reinhold Holtkamp, Sr. Dkt. No. 030502-0147 Appl. No.: 10/046,968 RCP/RKP:ko

Appeal Brief Under 37 CFR § 41.37 (29 pages) Exhibits A and B (42 pages)

Transmittal for Appeal Brief (including a <u>Petition for a one month extension of time</u>) (3 pages)

Check Number 75379 in the amount of \$310.00

Due Date: September 2, 2005
Date Filed: September 2, 2005
Insp. By: LBC



002.1456463.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:

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Appl. No.:

10/046,968

Filing Date:

January 17, 2002

Examiner:

Wendy C. Haas

Art Unit:

1661

TRANSMITTAL FOR APPEAL BRIEF

MS APPEAL BRIEF-PATENTS Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Appeal Brief in the above-identified application.

- [X] Small Entity status under 37 C.F.R. § 1.9 and § 1.27 has been established by a previous assertion of Small Entity status.
- [X] Applicant hereby petitions for an extension of time under 37 C.F.R. §1.136(a) for the total number of months checked below:

[X] Extension for response filed within the first month:	\$120.00	\$120.00
[X] Extension for response filed within the second month:	\$450.00	\$0.00
Extension for response filed within the third month:	\$1,020.00	\$0.00
Extension for response filed within the fourth month:	\$1,590.00	\$0.00
Extension for response filed within the fifth month:	\$2,160.00	\$0.00
EXTENSION	I FEE TOTAL:	\$0.00
	\$500.00	\$500.00
[X] Appeal Brief Under 37 CFR § 41.37 Extension and Appeal Brief fee		\$620.00
Small Entity Fees Apply (subtract ½ of above):		\$310.00
[X]	TOTAL FEE:	\$310.00

Please charge Deposit Account No. 19-0741 in the amount of \$0.00. A duplicate copy of this transmittal is enclosed.

- [X] A check in the amount of \$310.00 for an Appeal Brief and a one month extension of time is enclosed.
- [X] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Application No. 10/046,968

Attorney Docket 030502-0147

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reinhold HOLTKAMP, SR.

Attorney Docket No. 030502-0147

U.S. Application No. 10/046,968

Filing Date: January 17, 2002

Examiner: Wendy C. Haas

Group Art Unit: 1661

Entitled:

MULTIFLORESCENCE TRAIT IN AFRICAN VIOLETS

MS APPEAL BRIEF - PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

This paper appeals under 35 U.S.C. § 134 from the Final Office action mailed December 2, 2004, which rejected claims 1-3 and 5-8. It is timely filed within three months of the Notice of Appeal filed June 2, 2005, and is accompanied with the required fee under Bd.R. 20(b)(2).

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I. REAL PARTY IN INTEREST [37 C.F.R. § 41.37(c)(1)(i)]

The real party in interest is International Plant Breeding AG, the final assignee of the inventor's entire interest.

II. RELATED APPEALS AND INTERFERENCES [37 C.F.R. § 41.37(c)(1)(ii)]

Not Applicable. There are no prior or pending related appeals, interferences, or judicial proceedings.

III. STATUS OF CLAIMS [37 C.F.R. § 41.37(c)(1)(iii)]

Claims 1-3 and 5-8 were rejected and are appealed. Claim 4 is pending and objected to, but would be allowable if written in independent form.

IV. STATUS OF AMENDMENTS [37 C.F.R. § 41.37(c)(1)(iv)]

Not Applicable. No relevant amendment was filed by Applicant.

V. SUMMARY OF CLAIMED SUBJECT MATTER [37 C.F.R. § 41.37(c)(1)(v)]

The claimed invention embraces a multiflorescence trait in an African Violet plant. African Violets exhibiting the multiflorescence trait have at least one leaf axil with more than one flower stem. See Specification, for example, page 7, lines 10-12. Claim 1 recites an African Violet plant comprising at least one leaf axil that produces more than one flower stem. *Id.* Examples 1-2, for instance, disclose multiflorescent African Violet plants.

Claim 5 recites a method of producing an African Violet plant having at least one leaf axil with more than one flower stem and a second desirable trait, the method comprising the steps of crossing, as the male or female parent, a first African Violet plant that has at least one leaf axil with more than one flower stem, with a second African Violet plant having a second desirable trait but only 1 flower stem on any leaf axil, and selecting progeny that have at least one leaf axil with more than one flower stem and the second desirable trait. Specification, for example, page 4, lines 8-15. The second desirable trait is selected from flower color, leaf color, disease resistance, leaf size, and growth habit. Specification, for instance, page 4, lines 15-17. The Board is directed to Example 2 and Figures 5-6, which amongst other examples, disclose an African Violet produced by claim 5.

Claim 8 recites a method of increasing the number of flower stems per leaf axil in an African Violet plant by crossing a first plant that exhibits the multiflorescence trait with a second plant that exhibits the multiflorescence trail and selecting progeny from the

cross that produce more flower stems per leaf axil than either parent. Specification, e.g. page 4, lines 18-22 and Example 2.

VI. GROUNDS OF REJECTION [37 C.F.R. § 41.37(c)(1)(vi)]

- A. Enablement: Claims 1-3 and 5-8 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. The Examiner takes the position that the specification is enabled for multiflorescent plants derived from deposited materials but the specification lacks enablement for multiflorescent African Violets made by any other method.
- B. Written Description: Claims 1-3 and 7 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of written description. The Examiner takes the position that the specification discloses only a few specific multiflorescent African Violet plants and it is impossible to predict whether other multiflorescent African Violets could be developed.

VII. ARGUMENT [37 C.F.R. § 41.37(C)(1)(vii)]

A. FIRST REJECTION -Claims 1-3 and 5-8 are supported by an enabling disclosure under 35 U.S.C. § 112.

The first paragraph of 35 U.S.C. § 112 states:

The specification shall contain a written description of the invention, and the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

That is, to be "enabling," the specification must teach the skilled artisan how to make and use the invention. A determination of what level of experimentation is "undue," so as to render a disclosure non-enabling, is made from the viewpoint of persons experienced in the field of the invention. Elan Pharm., Inc. v. Mayo Found. For Med. Educ. and Research, 346 F.3d 1051, 68 U.S.P.Q.2d 1373 (Fed. Cir. 2003). "The determination of what constitutes undue experimentation in a given case requires the application of a standard of reasonableness, having due regard for the nature of the invention and the state of the art." In re Wands, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988). Undue experimentation requires consideration of several factors, including, but not limited to: (1) the breadth of the claims; (2) the nature of the invention; (3) the state of the prior art; (4) the level of one of ordinary skill; (5) the level of predictability in the art; (6) the amount of direction provided by the inventor; (7) the existence of working examples; and (8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In re Wands, 858 F.2d 731. 737, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988).

Applying the *Wands* factors to the instant invention, as enumerated below, the skilled artisan would understand the application to provide an enabling disclosure for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds.

The present specification enables the breadth of the claims. That is, the specification provides enabling support for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds. For example, multiflorescence African Violet plants can be produced from American Type Culture Collection (ATCC) seed deposit PTA-3982. See Declaration under 35 U.S.C. § 1.132, filed November 3, 2003 (Exhibit A). Alternatively, the specification makes clear "any African Violet selection carrying the multiflorescence trait could be substituted for 'SB 4-2 Muflo' as parent material for this breeding program." Specification, page 13, lines 10-23. For example, the specification at page 13, lines 18-20, discloses that variety 'P 40/9' can be used for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet backgrounds. Moreover, and as indicated in the specification, "new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics." Specification, page 2, lines 18-20. Because Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background, the disclosure enable the full breadth of the claims.

The nature of the invention and the state of the prior art enable the skilled artisan to predictably and reproducibly introgress the multiflorescent trait into diverse African

Violet genetic backgrounds. As indicated in the specification, African Violets are widely grown throughout the world and new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics. Specification, page 2, lines 16-20. While African Violet breeding programs have produced new cultivars with attractive flower color, longer flowering period, and profuse flowering, no breeding program has produced a multiflorescent phenotype. Using conventional African Violet breeding techniques, as known in the art and described in the specification (*e.g.* Example 2 and Figures 7-8), Applicant has successfully developed a multiflorescent African Violet breeding program. Because the present invention provides multiflorescent African Violet breeding material and methods for producing new multiflorescent varieties, the nature of the invention and state of the prior art enables the skilled artisan to predictably and reproducibly introgress the multiflorescent trait into diverse African Violet genetic backgrounds.

Applicant's disclosure provides sufficient direction and several examples that enable the predictable and reproducible introgression of the multiflorescent trait into diverse genetic African Violet backgrounds. As disclosed in Example 2, the instant invention provides direct guidance for breeding new multiflorescence cultivars. For example, 'SB 4-2 Muflo' was crossed with non-multiflorescence cultivars and yielded new cultivars exhibiting the desired multiflorescence traits. Specification, page 14, lines 10-14. As illustrated in Figure 4, the present methods were used to produce four commercial multiflorescence cultivars. The specification also provides support for introducing other colors and characteristics into the multiflorescence breeding program. Specification, page 14, lines 14-20. Thus, the present invention enables the skilled

artisan to predictably and reproducibly introgress the multiflorescent trait into diverse African Violet genetic backgrounds.

1. The specification provides enabling support for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds.

Patent applications involving living biological products, such as microorganisms and plants, present a unique question regarding availability. MPEP § 2164.06 (a) II. For example, in *In re Argoudelis*, 434 F.2d 1390, 168 USPQ 99 (CCPA 1970), the Court of Customs and Patent Appeals held that a utility patent claiming antibiotic compounds produced by a microorganism was enabled by depositing the microorganism in a public depository. Importantly, the *Argoudelis* Court held "because of the particular area of technology involved," an applicant may not be able to "sufficiently disclose by written word how to obtain the microorganism starting material from nature." *Argoudelis*, 434 F.2d at 1392; 168 U.S.P.Q. at 101. In doing so, the *Argoudelis* Court emphasized "any person skilled in the art with access to the pending application . . . can reproduce the invention from the written disclosure as it was originally filed." 434 F.2d at 1393; 168 U.S.P.Q. at 102. The *Argoudelis* court thus recognized that the deposit procedures permitted public access to the microorganism, and that such access adequately satisfied the Section 112 enablement requirement.

Like Argoudelis, where applicants were granted a patent for discovering new antimicrobial products, here Applicant has invented a new African Violet floral trait.

Similar to a chemical composition that hitherto never existed, the present invention provides a floral trait that previously never existed. That is, before Applicant's invention,

it was not possible to produce multiflorescence African Violet cultivars. Because of Applicant's disclosure, the skilled artisan can produce multiflorescence African Violets. In other words, the claimed invention is sufficiently enabled.

The Argoudelis Court held that the claimed invention was fully enabled because Applicants disclosed one method for producing the inventive antimicrobial compounds. Applying Argoudelis to the present invention, Applicant has disclosed at least one method for producing multiflorescence African Violet plants and therefore, the claimed invention is fully enabled. Because Applicant has provided at least one means for producing multiflorescence African Violets, Applicant has satisfied the Section 112 enablement requirement. Applicant is not required to provide numerous means for producing the claimed invention. For example, if Applicant had produced and claimed a new compound, Applicant would not be required to disclose several methods for producing the compound.

The Federal Circuit and its predecessor court, the Court of Customs and Patent Appeals (CCPA), maintain that as long as the specification discloses at least one method for making and using the claimed invention, then the enablement requirement is satisfied. *In re Fisher*, 427 F.2d 833, 839, 166 U.S.P.Q. 18, 24 (CCPA 1970). Failure to disclose other methods by which the claimed invention may be made does not render a claim invalid under Section 112. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533, 3 U.S.P.Q.2d 1737, 1743 (Fed. Cir.), cert. denied, 484 U.S. 954 (1987).

Here, Applicant has provided several methods for producing multiflorescent African Violet varieties. For example, multiflorescence African Violet plants can be

produced from American Type Culture Collection (ATCC) seed deposit PTA-3982. For this reason alone, Applicant's invention satisfies the enablement requirement and the rejection should be withdrawn. Additionally, the specification makes clear "any African Violet selection carrying the multiflorescence trait could be substituted for 'SB 4-2 Muflo' as parent material for this breeding program." Specification, page 13, lines 10-23. For example, the specification at page 13, lines 18-20, discloses that variety 'P 40/9' can be used for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet backgrounds. Moreover, and as indicated in the specification, "new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics." Specification, page 2, lines 18-20. Because Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background, the disclosure provides enabling support for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds.

2. The specification enables the production of new multiflorescence African Violet varieties.

In addition to producing multiflorescence African Violet plants directly from the ATCC seed deposit, the specification provides a means for developing other multiflorescence African Violet cultivars. That is, the specification discloses that the multiflorescence trait can be introgressed into any African Violet genetic background See specification, for example, page 16, lines 13-16. That is, Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background.

While Applicant has deposited multiflorescence African Violet seeds with the ATCC, the Examiner incorrectly assumes that all multiflorescent African Violets must be produced or derived from the deposited material. This is factually incorrect.

The specification indicates that the ATCC seed deposit PTA-3982 is produced from a cross between 'SB 4-2 Muflo' and 'P 6/6.' Specification, page 8, lines 2-5. Yet the specification clearly indicates "any African Violet selection carrying the multiflorescence trait could be substituted for 'SB 4-2 Muflo' as parent material for this breeding program." Specification, page 13, lines 16-18. Furthermore, the specification discloses "'P 40/9,' for example, has been successfully used as breeding stock to produce new African Violet selections that exhibit the multiflorescence trait." *Id.* at lines 18-20. In other words, the specification shows that other multiflorescent selections produced in Applicant's research program can be used in crosses with diverse Africa Violet selections to produce new multiflorescent varieties. Thus, the claimed invention is not limited to the deposited material.

Moreover, and as indicated in the specification, "new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics." Specification, page 2, lines 18-20. Notably, and as indicated in the specification, Applicant has produced several multiflorescence African Violet cultivars <u>independent</u> of the ATCC deposited material. For example, Applicant's multiflorescence African Violet cultivars 'EverLove' (now U.S. Plant Patent No. 13, 786), 'EverHarmony' (now U.S. Plant Patent No. 13, 789) and 'EverGrace' (now U.S. Plant Patent No. 13,842), 'EverPraise' (now U.S. Plant Patent No. 13,789) and 'EverGrace' (now U.S. Plant Patent No. 13,818) were developed <u>independent</u> of the

ATCC deposited material. Specification, page 5, lines 20 to page 6, line 12. Because Applicant has shown that multiflorescent African Violet cultivars can be produced without using the ATCC seed deposit and the PTO issued U.S. Plant Patents directed to these same multiflorescence African Violet cultivars, the Examiner's allegations are without merit and the rejection should be reversed.

The PTO routinely grants patent applications embracing new plant traits or phenotypes. For example, U.S. Patent No. 5,684,225 ("the '225 patent"), issued November 4, 1997, discloses a new New Guinea Impatiens plant characterized by a double-flowering phenotype, wherein substantially all of the flowers have at least seven full or partial petals per flower. See Exhibit B, the '225 patent. Specifically, claim 1 recites "a New Guinea Impatiens plant, produced by conventional breeding methods, which has one or more double-type flowers with at least 7 full or partial petals per flower." The '225 patent also claims a method for producing a New Guinea impatiens having a double-flowering phenotype. Claim 7 recites "a method for the breeding of double-flowering New Guinea Impatiens plants that produce one or more flowers with at least 7 full or partial petals per flower comprising the steps of : (a) crossing a first doubletype plant, either as the male or female parent to (i) a semi-double-type plant; (ii) a second double-type plant; (iii) a single-type plant having doubleness in its genetic background; or (iv) a single-type plant with no known doubleness in its genetic background...(b) selecting F1 progeny that are single-type, semi-double-type, or doubletype; (c) crossing said F1 proegeny...and (d) selecting double-flowering progeny.

In issuing the '225 patent, the PTO found the '225 patent disclosure enabling. That is, the PTO allowed claims for a New Guinea Impatiens plant having a specific trait (double flowering) and methods for producing new double-flowering New Guinea Impatiens varieties by conventional cross. While the '225 patent provides a preferred cultivar for use as breeding stock, deposited as cultivar 90-132-2 with the American Type Culture Collection, the '225 patent makes clear that the seed deposit is illustrative of the invention, not the invention. Accordingly, the '225 patent claims a New Guinea Impatiens plant having one or more double-type flowers and methods for producing same independent of the ATCC deposit.

Like the '225 patent, the present invention discloses how to stably and reproducibly produce a plant with a specific trait (multiflorescence). Applying the PTO's own enablement standards to the present invention, Applicant's disclosure of an African Violet plant with a specific trait (multiflorescence) and methods for producing new multiflorescent African Violet varieties by conventional cross is enabling. Similar to the '225 patent, the present invention discloses that the multiflorescence trait can be introgressed into any African Violet genetic background. Specification, for example, page 16, lines 13-16. That is, Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background. Again, like the '225 patent, the Applicant's ATCC seed deposit is illustrative of the invention, but it is not the invention. Because Applicant has produced several multiflorescence African Violet cultivars independent of the ATCC deposited material, the specification provides enabling support for a multiflorescent African Violet

plant and methods for producing same. Accordingly, the Examiner's rejection is improper and should be reversed.

B. SECOND REJECTION: Claims 1-3 and 7 are supported by a written description as defined under 35 U.S.C. § 112, first paragraph.

The first paragraph of 35 U.S.C. § 112 requires that "the specification shall contain a written description of the invention..." "[T]he 'essential goal' of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed." *In re Barker*, 559 F.2d 588, 592, 194 U.S.P.Q. 470, 473 (CCPA 1977). In other words, the written description requirement ensures that patentees adequately describe their inventions in their patent specification in exchange for the right to exclude others from practicing the invention for the duration of the patent's term.

1. The multiflorescence phenotype is described.

The Examiner alleges that pending claims are drawn to any African Violet seeds/and or plants with more than one inflorescence per leaf axil and therefore, she considers "whether the phenotype of the claimed plant has been described." Final Office Action, page 3.

The specification provides written support for the claimed multiflorescence

African Violet plant. For example, the as-filed specification makes clear that African

Violet plants expressing the multiflorescence trait have at least one leaf axil with more
than one flower stem. Specification, page 7, lines 10-12. The specification provides
numerous examples describing the claimed multiflorescence phenotype (see, for instance,
Example 1) and methods for producing an African Violet plant expressing the claimed

phenotype (see, *inter alia*, Example 2 and Figures 7-8). Thus, the specification provides written support for the claimed invention.

Despite substantial written support for a multiflorescence African Violet plant, the Examiner alleges "plants have many phenotypical traits, which vary independently, so millions of possible phenotypes are possible and claimed." Final Office Action, page 3. This statement clearly indicates the Examiner confuses the enablement and written description requirements. Applicant provides enabling support for introgressing the multiflorescence trait into diverse African Violet genetic backgrounds and therefore the specification enables combining the new trait with other African Violet characteristics of interest. Applicant's application specification also satisfies the written description requirement because plants exhibiting the claimed multiflorescence trait are clearly described and therefore applicant was in possession of the claimed invention at the time of filing.

As described in Example 2, the multiflorescence trait is dominant and has been introgressed into diverse African Violet genetic backgrounds. Following Mendelian genetics, the resultant progeny either display the multiflorescence phenotype, or they do not. Because the skilled plant breeder would be able to identify plants expressing the desired phenotype, the presence of any other phenotype is immaterial. Thus, the Examiner's assertion that there are "millions of phenotypes" is not only unfounded, but also irrelevant.

The Examiner further rejects the pending claims on the grounds that "it is not possible to adequately describe the claimed products because the cross of a hybrid plant

gives rise to a heterozygous population." Final Office Action, page 3. That is, the Examiner alleges "one skilled in the art would not be able to predict all of the resulting phenotypes." *Id.* Again, the Examiner's rejection is scientifically unsound. First, it is irrelevant to patentability whether the skilled artisan can "predict all of the resulting phenotypes." But, for argument's sake, the skilled artisan can indeed reasonably calculate the percentage of progeny exhibiting the multiflorescence trait. Because the multiflorescence trait is dominant and follows Mendelian genetics, the skilled plant breeder can predict with reasonable accuracy the percentage of progeny that will exhibit the multiflorescence phenotype. Here, because the multiflorescence trait is dominant, at least 50% of the F₁ (First Filial) generation will have the multiflorescence phenotype. Specification, page 16, lines 18-21. Thus, the specification provides ample support for the claimed multiflorescence phenotype.

For at least these reasons, the Examiner's written description rejection is improper and should be reversed.

2. Patentability is analyzed at the time of filing, not during patent term.

By statute, a person shall be entitled to a patent unless the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent. 35 U.S.C. § 102 (a). That is, Section 102 makes clear that patentability is assessed at the time of filing, not during the patent term of allowed claims.

Yet the Examiner maintains her rejection on the grounds that later-arising technology may produce another method for developing multiflorescent African Violets. Final Office Action, page 4. Specifically, the Examiner alleges "Applicant has invented multiflorescent African Violets produced by a specific method and should not be permitted to claim all multiflorescent African Violets produced by any method, as it is impossible to predict whether or not multiflorescent African Violets could be developed by an alternate, non-obvious method during the patent term of the instant claims." Final Office Action, page 5, first paragraph.

The probability of developing a later-rising technology is irrelevant to patentability. That is, patentability is assessed as of the *filing date*, not during patent term. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 19 U.S.P.Q.2d 1111(Fed. Cir. 1991). Here, the filing date sought is that of the '968 application, *i.e.*, January 17, 2002. Thus, evidence not probative to what the specification would have conveyed as of January 17, 2002, is irrelevant to the present issue. Nowhere in the Patent Statutes, Rules, or MPEP does patentability hinge on whether a skilled artisan could develop a later-arising method analogous to the claims at issue.

Not only is the Examiner's rejection invalid on its face, but it also defies public policy for promoting technological advancements. Applying the Examiner's own rationale, no invention would ever be deemed patentable because one could always make the argument that it is impossible to predict whether a skilled artisan would develop a later-arising technology. For example, in *In re Hogan*, 559 F.2d 595, 194 U.S.P.Q. 527 (CCPA 1977), the PTO rejected claims for lack of enablement after concluding that, in

view of later-arising technology, the claims were broad enough to embrace certain laterarising embodiments that were not enabled by the application. The Court of Customs and Patent Appeals reversed the PTO, holding that it was enough that the application enabled the claims as construed in light of the state of the art at the time of filing. *Hogan*, 559 F.2d at 606; 194 U.S.P.Q. at 540. As the court explained, "the use of a subsequently-existing improvement to show lack of enablement in an earlier-filed application on the basic invention would preclude issuance of a patent to the inventor of the thing improved, and in the case of issued patents, would invalidate all claims ... therein." *Hogan*, 559 F.2d at 606, 194 U.S.P.Q. at 538.

In the present case, the Examiner attempts the revive, under the guise of a written description rejection, the PTO's disturbing position in *Hogan*. This attempt is most certainly as improper now as it was at the time of *Hogan*, and the rejections should be reversed.

VIII. CONCLUSION

Wherefore, Appellant prays that the Honorable Board reverse the outstanding final rejection.

Respectfully submitted,

September 2, 2005

Richard Peet

Registration No. 35,792

FOLEY & LARDNER LLP 3000 K St., N.W. Washington, DC 20007 ph (202)672-5300

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and Applicant hereby petition for any needed extension of time.

CLAIMS APPENDIX [37 C.F.R. § 41.37(C)(1)(VIII)]

- 1. An African Violet plant comprising at least one leaf axil that produces more than one flower stem.
- 2. The African Violet plant of claim 1 wherein the leaf axil produces at least 3 flower stems.
- 3. The African Violet plant of claim 1 wherein the leaf axil produces at least 4 flower stems.
- 4. Not Appealed.
- 5. A method of producing an African Violet plant having at least one leaf axil with more than one flower stem and a second desirable trait, the method comprising the steps of crossing, as the male or female parent, a first African Violet plant that has at least one leaf axil with more than one flower stem, with a second African Violet plant having a second desirable trait but only 1 flower stem on any leaf axil, and selecting progeny that have at least one leaf axil with more than one flower stem and the second desirable trait.
- 6. The method according to claim 5, wherein the second desirable trait is selected from the group consisting of flower color, leaf color, disease resistance, leaf size and growth habit.
- 7. African Violet seeds produced by the method of claim 5, wherein the seeds produce a plant comprising at least one leaf axil that has more than one flower stem.

8. A method of increasing the number of flower stems per leaf axil in a African Violet plant comprising the steps of crossing a first plant that exhibits the multiflorescence trait with a second plant that exhibits the multiflorescence trait and selecting progeny from the cross that produce more flower stems per leaf axil than either parent.

EVIDENCE APPENDIX [37 C.F.R. § 41.37(C)(1)(ix)]

The following pages contain the following documents:

Exhibit A: Declaration under 35 U.S.C. § 1.132, filed November 23, 2003 (2 pages).

Exhibit B: U.S. Patent No. 5,684,225, issued November 4, 1997 (40 pages).

RELATED PROCEEDINGS UNDER [37 C.F.R. § 41.37(C)(1)(X)]

Not Applicable. There are related proceedings.



In re patent application of

Reinhold HOLTKAMP, Sr.

Group Art Unit: 1661

Serial No. 10/046,968

Examiner: W. Haas

Filed: January 17, 2002

For:

MULTIFLORESCENCE TRAIT IN AFRICAN VIOLETS

DECLARATION UNDER 35 U.S.C. § 1.132

I, Richard Peet, the attorney of record in the present application, declare that at least 2500 seeds from the cross of African Violet 'SB 4-2 Muflo' with African Violet'P6/6' were deposited on January 16, 2002 at the American Type Culture Collection (ATCC) (10801 University Blvd., Manassas, VA, a Budapest Treaty recognized depository which affords permanence of the deposit, and accorded ATCC Accession No. PTA-3982. A copy of the deposit receipt is enclosed for convenience.

I confirm that the deposited seeds are specifically identified in this application as filed. I further confirm that during the pendency of the patent application access to the deposited seeds will be allowed to those persons properly designated by the Commissioner of Patents and Trademarks; that the deposited seeds will be replaced should it die or be destroyed during the enforceable life of any patent issued out of this patent application, for five years after the last request for a sample of the deposited seeds or for thirty years, whichever is longer; that upon issuance of a patent, applicant will irrevocably remove all restrictions to access to the seeds for the duration of the deposit; and that maintenance charges for the duration of the deposit will be paid.

November 3, 2003

Richard C. Peet

Attorney for Applicant Registration No. 35,792



10801 University Blvd • Manassas, VA 20110-2209 • Telephone: 703-365-2700 • FAX: 703-365-2745

BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSES OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT ISSUED PURSUANT TO RULE 7.3
AND VIABILITY STATEMENT ISSUED PURSUANT TO RULE 10.2

To: (Name and Address of Depositor or Attorney)

Reinhold Holtkamp 6011 Martingale Lane Brentwood, Tennessee 37027

Deposited on Behalf of: International Plant Breeding AG. Koenizstrasse 230 CH-3097 Liebefeld SWITZERLAND

Identification Reference by Depositor:

Patent Deposit Designation

Saintpaulia Ionantha-"African Violet": SB4-2/P6-6 muflo

PTA-3982

The seeds were accompanied by: _ a scientific description a proposed taxonomic description indicated above. The seeds were received <u>January 16, 2002</u> by this International Depository Authority and have been accepted.

AT YOUR REQUEST: X We will inform you of requests for the seeds for 30 years.

The seeds will be made available if a patent office signatory to the Budapest Treaty certifies one's right to receive, or if a U.S. Patent is issued citing the seeds and ATCC is instructed by the United States Patent & Trademark Office or the depositor to release said seeds.

If the seeds should die or be destroyed during the effective term of the deposit, it shall be your responsibility to replace them with viable seeds of the same.

The seeds will be maintained for a period of at least 30 years from date of deposit, or five years after the most recent request for a sample, whichever is longer. The United States and many other countries are signatory to the Budapest Treaty.

The viability of the seeds cited above was tested January 20, 2003. On that date, the seeds were viable.

International Depository Authority: American Type Culture Collection, Manassas, VA 20110-2209 USA.

Signature of person having authority to represent ATCC:

Marie Harris, Patent Specialist, ATCC Patent Depository

Date: February 11. 2003

cc: Richard C. Peet

EXHIBIT B





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:

Reinhold HOLTKAMP, Sr. et al.

Title:

MULTIFLORESCENCE TRAIT IN AFRICAN VIOLETS

Appl. No.:

10/046,968

Filing Date: January 17, 2002

Examiner:

Wendy C. Haas

Art Unit:

1661

TRANSMITTAL FOR APPEAL BRIEF

MS APPEAL BRIEF-PATENTS Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Appeal Brief in the above-identified application.

- [X] Small Entity status under 37 C.F.R. § 1.9 and § 1.27 has been established by a previous assertion of Small Entity status.
- [X] Applicant hereby petitions for an extension of time under 37 C.F.R. §1.136(a) for the total number of months checked below:

09/06/2005 SZEWDIE1 00000042 10046968

02 FC:2251

60.00 OP

[X] Extension for response filed within the first month:	\$120.00	\$120.00
[] Extension for response filed within the second month:	\$450.00	\$0.00
[] Extension for response filed within the third month:	\$1,020.00	\$0.00
[] Extension for response filed within the fourth month:	\$1,590.00	\$0.00
[] Extension for response filed within the fifth month:	\$2,160.00	\$0.00
EXTENSION FEE TOTAL:		\$0.00
[X] Appeal Brief Under 37 CFR § 41.37	\$500.00	\$500.00
Extension and Appeal Brief fees		\$620.00
[X] Small Entity Fees Apply (subtract ½ of above):		\$310.00
TOTAL FEE:		\$310.00

^[] Please charge Deposit Account No. 19-0741 in the amount of \$0.00. A duplicate copy of this transmittal is enclosed.

[X] A check in the amount of \$310.00 for an Appeal Brief and a one month extension of time is enclosed.

[X] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

35,087 fir

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

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Respectfully submitted,

Richard C. Peet

Registration No. 35,792

Attorney for Applicant



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reinhold HOLTKAMP, SR.

Attorney Docket No. 030502-0147

U.S. Application No. 10/046,968

Filing Date: January 17, 2002

Examiner: Wendy C. Haas

Group Art Unit: 1661

Entitled:

MULTIFLORESCENCE TRAIT IN AFRICAN VIOLETS

MS APPEAL BRIEF - PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

This paper appeals under 35 U.S.C. § 134 from the Final Office action mailed December 2, 2004, which rejected claims 1-3 and 5-8. It is timely filed within three months of the Notice of Appeal filed June 2, 2005, and is accompanied with the required fee under Bd.R. 20(b)(2).

09/06/2005 SZEWDIE1 00000042 10046968

01 FC:2402

250.00 OP



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I. REAL PARTY IN INTEREST [37 C.F.R. § 41.37(c)(1)(i)]

The real party in interest is International Plant Breeding AG, the final assignee of the inventor's entire interest.

II. RELATED APPEALS AND INTERFERENCES [37 C.F.R. § 41.37(c)(1)(ii)]

Not Applicable. There are no prior or pending related appeals, interferences, or judicial proceedings.

III. STATUS OF CLAIMS [37 C.F.R. § 41.37(c)(1)(iii)]

Claims 1-3 and 5-8 were rejected and are appealed. Claim 4 is pending and objected to, but would be allowable if written in independent form.

IV. STATUS OF AMENDMENTS [37 C.F.R. § 41.37(c)(1)(iv)]

Not Applicable. No relevant amendment was filed by Applicant.

V. SUMMARY OF CLAIMED SUBJECT MATTER [37 C.F.R. § 41.37(c)(1)(v)]

The claimed invention embraces a multiflorescence trait in an African Violet plant. African Violets exhibiting the multiflorescence trait have at least one leaf axil with more than one flower stem. See Specification, for example, page 7, lines 10-12. Claim 1 recites an African Violet plant comprising at least one leaf axil that produces more than one flower stem. *Id.* Examples 1-2, for instance, disclose multiflorescent African Violet plants.

Claim 5 recites a method of producing an African Violet plant having at least one leaf axil with more than one flower stem and a second desirable trait, the method comprising the steps of crossing, as the male or female parent, a first African Violet plant that has at least one leaf axil with more than one flower stem, with a second African Violet plant having a second desirable trait but only 1 flower stem on any leaf axil, and selecting progeny that have at least one leaf axil with more than one flower stem and the second desirable trait. Specification, for example, page 4, lines 8-15. The second desirable trait is selected from flower color, leaf color, disease resistance, leaf size, and growth habit. Specification, for instance, page 4, lines 15-17. The Board is directed to Example 2 and Figures 5-6, which amongst other examples, disclose an African Violet produced by claim 5.

Claim 8 recites a method of increasing the number of flower stems per leaf axil in an African Violet plant by crossing a first plant that exhibits the multiflorescence trait with a second plant that exhibits the multiflorescence trail and selecting progeny from the

cross that produce more flower stems per leaf axil than either parent. Specification, e.g. page 4, lines 18-22 and Example 2.

VI. GROUNDS OF REJECTION [37 C.F.R. § 41.37(c)(1)(vi)]

A. Enablement: Claims 1-3 and 5-8 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. The Examiner takes the position that the specification is enabled for multiflorescent plants derived from deposited materials but the specification lacks enablement for multiflorescent African Violets made by any other method.

B. Written Description: Claims 1-3 and 7 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of written description. The Examiner takes the position that the specification discloses only a few specific multiflorescent African Violet plants and it is impossible to predict whether other multiflorescent African Violets could be developed.

VII. ARGUMENT [37 C.F.R. § 41.37(C)(1)(vii)]

A. FIRST REJECTION —Claims 1-3 and 5-8 are supported by an enabling disclosure under 35 U.S.C. § 112.

The first paragraph of 35 U.S.C. § 112 states:

The specification shall contain a written description of the invention, and the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

That is, to be "enabling," the specification must teach the skilled artisan how to make and use the invention. A determination of what level of experimentation is "undue," so as to render a disclosure non-enabling, is made from the viewpoint of persons experienced in the field of the invention. Elan Pharm., Inc. v. Mayo Found. For Med. Educ. and Research, 346 F.3d 1051, 68 U.S.P.Q.2d 1373 (Fed. Cir. 2003). "The determination of what constitutes undue experimentation in a given case requires the application of a standard of reasonableness, having due regard for the nature of the invention and the state of the art." In re Wands, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988). Undue experimentation requires consideration of several factors, including, but not limited to: (1) the breadth of the claims; (2) the nature of the invention; (3) the state of the prior art; (4) the level of one of ordinary skill; (5) the level of predictability in the art; (6) the amount of direction provided by the inventor; (7) the existence of working examples; and (8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In re Wands, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988).

Applying the Wands factors to the instant invention, as enumerated below, the skilled artisan would understand the application to provide an enabling disclosure for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds.

The present specification enables the breadth of the claims. That is, the specification provides enabling support for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds. For example, multiflorescence African Violet plants can be produced from American Type Culture Collection (ATCC) seed deposit PTA-3982. See Declaration under 35 U.S.C. § 1.132, filed November 3, 2003 (Exhibit A). Alternatively, the specification makes clear "any African Violet selection carrying the multiflorescence trait could be substituted for 'SB 4-2 Muflo' as parent material for this breeding program." Specification, page 13, lines 10-23. For example, the specification at page 13, lines 18-20, discloses that variety 'P 40/9' can be used for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet backgrounds. Moreover, and as indicated in the specification, "new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics." Specification, page 2, lines 18-20. Because Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background, the disclosure enable the full breadth of the claims.

The nature of the invention and the state of the prior art enable the skilled artisan to predictably and reproducibly introgress the multiflorescent trait into diverse African

Violet genetic backgrounds. As indicated in the specification, African Violets are widely grown throughout the world and new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics. Specification, page 2, lines 16-20. While African Violet breeding programs have produced new cultivars with attractive flower color, longer flowering period, and profuse flowering, no breeding program has produced a multiflorescent phenotype. Using conventional African Violet breeding techniques, as known in the art and described in the specification (e.g. Example 2 and Figures 7-8), Applicant has successfully developed a multiflorescent African Violet breeding program. Because the present invention provides multiflorescent African Violet breeding material and methods for producing new multiflorescent varieties, the nature of the invention and state of the prior art enables the skilled artisan to predictably and reproducibly introgress the multiflorescent trait into diverse African Violet genetic backgrounds.

Applicant's disclosure provides sufficient direction and several examples that enable the predictable and reproducible introgression of the multiflorescent trait into diverse genetic African Violet backgrounds. As disclosed in Example 2, the instant invention provides direct guidance for breeding new multiflorescence cultivars. For example, 'SB 4-2 Muflo' was crossed with non-multiflorescence cultivars and yielded new cultivars exhibiting the desired multiflorescence traits. Specification, page 14, lines 10-14. As illustrated in Figure 4, the present methods were used to produce four commercial multiflorescence cultivars. The specification also provides support for introducing other colors and characteristics into the multiflorescence breeding program. Specification, page 14, lines 14-20. Thus, the present invention enables the skilled

artisan to predictably and reproducibly introgress the multiflorescent trait into diverse African Violet genetic backgrounds.

1. The specification provides enabling support for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds.

Patent applications involving living biological products, such as microorganisms and plants, present a unique question regarding availability. MPEP § 2164.06 (a) II. For example, in *In re Argoudelis*, 434 F.2d 1390, 168 USPQ 99 (CCPA 1970), the Court of Customs and Patent Appeals held that a utility patent claiming antibiotic compounds produced by a microorganism was enabled by depositing the microorganism in a public depository. Importantly, the *Argoudelis* Court held "because of the particular area of technology involved," an applicant may not be able to "sufficiently disclose by written word how to obtain the microorganism starting material from nature." *Argoudelis*, 434 F.2d at 1392; 168 U.S.P.Q. at 101. In doing so, the *Argoudelis* Court emphasized "any person skilled in the art with access to the pending application . . . can reproduce the invention from the written disclosure as it was originally filed." 434 F.2d at 1393; 168 U.S.P.Q. at 102. The *Argoudelis* court thus recognized that the deposit procedures permitted public access to the microorganism, and that such access adequately satisfied the Section 112 enablement requirement.

Like Argoudelis, where applicants were granted a patent for discovering new antimicrobial products, here Applicant has invented a new African Violet floral trait.

Similar to a chemical composition that hitherto never existed, the present invention provides a floral trait that previously never existed. That is, before Applicant's invention,

it was not possible to produce multiflorescence African Violet cultivars. Because of Applicant's disclosure, the skilled artisan can produce multiflorescence African Violets. In other words, the claimed invention is sufficiently enabled.

The Argoudelis Court held that the claimed invention was fully enabled because Applicants disclosed one method for producing the inventive antimicrobial compounds. Applying Argoudelis to the present invention, Applicant has disclosed at least one method for producing multiflorescence African Violet plants and therefore, the claimed invention is fully enabled. Because Applicant has provided at least one means for producing muliflorescence African Violets, Applicant has satisfied the Section 112 enablement requirement. Applicant is not required to provide numerous means for producing the claimed invention. For example, if Applicant had produced and claimed a new compound, Applicant would not be required to disclose several methods for producing the compound.

The Federal Circuit and its predecessor court, the Court of Customs and Patent Appeals (CCPA), maintain that as long as the specification discloses at least one method for making and using the claimed invention, then the enablement requirement is satisfied. *In re Fisher*, 427 F.2d 833, 839, 166 U.S.P.Q. 18, 24 (CCPA 1970). Failure to disclose other methods by which the claimed invention may be made does not render a claim invalid under Section 112. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533, 3 U.S.P.Q.2d 1737, 1743 (Fed. Cir.), cert. denied, 484 U.S. 954 (1987).

Here, Applicant has provided several methods for producing multiflorescent

African Violet varieties. For example, multiflorescence African Violet plants can be

produced from American Type Culture Collection (ATCC) seed deposit PTA-3982. For this reason alone, Applicant's invention satisfies the enablement requirement and the rejection should be withdrawn. Additionally, the specification makes clear "any African Violet selection carrying the multiflorescence trait could be substituted for 'SB 4-2 Muflo' as parent material for this breeding program." Specification, page 13, lines 10-23. For example, the specification at page 13, lines 18-20, discloses that variety 'P 40/9' can be used for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet backgrounds. Moreover, and as indicated in the specification, "new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics." Specification, page 2, lines 18-20. Because Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background, the disclosure provides enabling support for predictably and reproducibly introgressing the multiflorescent trait into diverse African Violet genetic backgrounds.

2. The specification enables the production of new multiflorescence African Violet varieties.

In addition to producing multiflorescence African Violet plants directly from the ATCC seed deposit, the specification provides a means for developing other multiflorescence African Violet cultivars. That is, the specification discloses that the multiflorescence trait can be introgressed into any African Violet genetic background See specification, for example, page 16, lines 13-16. That is, Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background.

While Applicant has deposited multiflorescence African Violet seeds with the ATCC, the Examiner incorrectly assumes that all multiflorescent African Violets must be produced or derived from the deposited material. This is factually incorrect.

The specification indicates that the ATCC seed deposit PTA-3982 is produced from a cross between 'SB 4-2 Muflo' and 'P 6/6.' Specification, page 8, lines 2-5. Yet the specification clearly indicates "any African Violet selection carrying the multiflorescence trait could be substituted for 'SB 4-2 Muflo' as parent material for this breeding program." Specification, page 13, lines 16-18. Furthermore, the specification discloses "'P 40/9,' for example, has been successfully used as breeding stock to produce new African Violet selections that exhibit the multiflorescence trait." *Id.* at lines 18-20. In other words, the specification shows that other multiflorescent selections produced in Applicant's research program can be used in crosses with diverse Africa Violet selections to produce new multiflorescent varieties. Thus, the claimed invention is not limited to the deposited material.

Moreover, and as indicated in the specification, "new cultivars are developed through controlled breeding programs leading to desirable and stable characteristics." Specification, page 2, lines 18-20. Notably, and as indicated in the specification, Applicant has produced several multiflorescence African Violet cultivars independent of the ATCC deposited material. For example, Applicant's multiflorescence African Violet cultivars 'EverLove' (now U.S. Plant Patent No. 13, 786), 'EverHarmony' (now U.S. Plant Patent No. 13, 789) and 'EverGrace' (now U.S. Plant Patent No. 13, 789) and 'EverGrace' (now U.S. Plant Patent No. 13, 818) were developed independent of the

ATCC deposited material. Specification, page 5, lines 20 to page 6, line 12. Because Applicant has shown that multiflorescent African Violet cultivars can be produced without using the ATCC seed deposit and the PTO issued U.S. Plant Patents directed to these same multiflorescence African Violet cultivars, the Examiner's allegations are without merit and the rejection should be reversed.

The PTO routinely grants patent applications embracing new plant traits or phenotypes. For example, U.S. Patent No. 5,684,225 ("the '225 patent"), issued November 4, 1997, discloses a new New Guinea Impatiens plant characterized by a double-flowering phenotype, wherein substantially all of the flowers have at least seven full or partial petals per flower. See Exhibit B, the '225 patent. Specifically, claim 1 recites "a New Guinea Impatiens plant, produced by conventional breeding methods, which has one or more double-type flowers with at least 7 full or partial petals per flower." The '225 patent also claims a method for producing a New Guinea impatiens having a double-flowering phenotype. Claim 7 recites "a method for the breeding of double-flowering New Guinea Impatiens plants that produce one or more flowers with at least 7 full or partial petals per flower comprising the steps of: (a) crossing a first doubletype plant, either as the male or female parent to (i) a semi-double-type plant; (ii) a second double-type plant; (iii) a single-type plant having doubleness in its genetic background; or (iv) a single-type plant with no known doubleness in its genetic background...(b) selecting F1 progeny that are single-type, semi-double-type, or doubletype; (c) crossing said F1 proegeny...and (d) selecting double-flowering progeny.

In issuing the '225 patent, the PTO found the '225 patent disclosure enabling.

That is, the PTO allowed claims for a New Guinea Impatiens plant having a specific trait (double flowering) and methods for producing new double-flowering New Guinea Impatiens varieties by conventional cross. While the '225 patent provides a preferred cultivar for use as breeding stock, deposited as cultivar 90-132-2 with the American Type Culture Collection, the '225 patent makes clear that the seed deposit is illustrative of the invention, not the invention. Accordingly, the '225 patent claims a New Guinea Impatiens plant having one or more double-type flowers and methods for producing same independent of the ATCC deposit.

Like the '225 patent, the present invention discloses how to stably and reproducibly produce a plant with a specific trait (multiflorescence). Applying the PTO's own enablement standards to the present invention, Applicant's disclosure of an African Violet plant with a specific trait (multiflorescence) and methods for producing new multiflorescent African Violet varieties by conventional cross is enabling. Similar to the '225 patent, the present invention discloses that the multiflorescence trait can be introgressed into any African Violet genetic background. Specification, for example, page 16, lines 13-16. That is, Applicant's invention enables the skilled artisan to produce new multiflorescence African Violet varieties from any African Violet genetic background. Again, like the '225 patent, the Applicant's ATCC seed deposit is illustrative of the invention, but it is not the invention. Because Applicant has produced several multiflorescence African Violet cultivars independent of the ATCC deposited material, the specification provides enabling support for a multiflorescent African Violet

plant and methods for producing same. Accordingly, the Examiner's rejection is improper and should be reversed.

B. SECOND REJECTION: Claims 1-3 and 7 are supported by a written description as defined under 35 U.S.C. § 112, first paragraph.

The first paragraph of 35 U.S.C. § 112 requires that "the specification shall contain a written description of the invention...." "[T]he 'essential goal' of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed." *In re Barker*, 559 F.2d 588, 592, 194 U.S.P.Q. 470, 473 (CCPA 1977). In other words, the written description requirement ensures that patentees adequately describe their inventions in their patent specification in exchange for the right to exclude others from practicing the invention for the duration of the patent's term.

1. The multiflorescence phenotype is described.

The Examiner alleges that pending claims are drawn to any African Violet seeds/and or plants with more than one inflorescence per leaf axil and therefore, she considers "whether the phenotype of the claimed plant has been described." Final Office Action, page 3.

The specification provides written support for the claimed multiflorescence

African Violet plant. For example, the as-filed specification makes clear that African

Violet plants expressing the multiflorescence trait have at least one leaf axil with more
than one flower stem. Specification, page 7, lines 10-12. The specification provides
numerous examples describing the claimed multiflorescence phenotype (see, for instance,

Example 1) and methods for producing an African Violet plant expressing the claimed

phenotype (see, *inter alia*, Example 2 and Figures 7-8). Thus, the specification provides written support for the claimed invention.

Despite substantial written support for a multiflorescence African Violet plant, the Examiner alleges "plants have many phenotypical traits, which vary independently, so millions of possible phenotypes are possible and claimed." Final Office Action, page 3. This statement clearly indicates the Examiner confuses the enablement and written description requirements. Applicant provides enabling support for introgressing the multiflorescence trait into diverse African Violet genetic backgrounds and therefore the specification enables combining the new trait with other African Violet characteristics of interest. Applicant's application specification also satisfies the written description requirement because plants exhibiting the claimed multiflorescence trait are clearly described and therefore applicant was in possession of the claimed invention at the time of filing.

As described in Example 2, the multiflorescence trait is dominant and has been introgressed into diverse African Violet genetic backgrounds. Following Mendelian genetics, the resultant progeny either display the multiflorescence phenotype, or they do not. Because the skilled plant breeder would be able to identify plants expressing the desired phenotype, the presence of any other phenotype is immaterial. Thus, the Examiner's assertion that there are "millions of phenotypes" is not only unfounded, but also irrelevant.

The Examiner further rejects the pending claims on the grounds that "it is not possible to adequately describe the claimed products because the cross of a hybrid plant

gives rise to a heterozygous population." Final Office Action, page 3. That is, the Examiner alleges "one skilled in the art would not be able to predict all of the resulting phenotypes." *Id.* Again, the Examiner's rejection is scientifically unsound. First, it is irrelevant to patentability whether the skilled artisan can "predict all of the resulting phenotypes." But, for argument's sake, the skilled artisan can indeed reasonably calculate the percentage of progeny exhibiting the multiflorescence trait. Because the multiflorescence trait is dominant and follows Mendelian genetics, the skilled plant breeder can predict with reasonable accuracy the percentage of progeny that will exhibit the multiflorescence phenotype. Here, because the multiflorescence trait is dominant, at least 50% of the F₁ (First Filial) generation will have the multiflorescence phenotype. Specification, page 16, lines 18-21. Thus, the specification provides ample support for the claimed multiflorescence phenotype.

For at least these reasons, the Examiner's written description rejection is improper and should be reversed.

2. Patentability is analyzed at the time of filing, not during patent term.

By statute, a person shall be entitled to a patent unless the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, <u>before</u> the invention thereof by the applicant for patent. 35 U.S.C. § 102 (a). That is, Section 102 makes clear that patentability is assessed at the time of filing, not during the patent term of allowed claims.

Yet the Examiner maintains her rejection on the grounds that later-arising technology may produce another method for developing multiflorescent African Violets. Final Office Action, page 4. Specifically, the Examiner alleges "Applicant has invented multiflorescent African Violets produced by a specific method and should not be permitted to claim all multiflorescent African Violets produced by any method, as it is impossible to predict whether or not multiflorescent African Violets could be developed by an alternate, non-obvious method during the patent term of the instant claims." Final Office Action, page 5, first paragraph.

The probability of developing a later-rising technology is irrelevant to patentability. That is, patentability is assessed as of the *filing date*, not during patent term. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 19 U.S.P.Q.2d 1111(Fed. Cir. 1991). Here, the filing date sought is that of the '968 application, *i.e.*, January 17, 2002. Thus, evidence not probative to what the specification would have conveyed as of January 17, 2002, is irrelevant to the present issue. Nowhere in the Patent Statutes, Rules, or MPEP does patentability hinge on whether a skilled artisan could develop a later-arising method analogous to the claims at issue.

Not only is the Examiner's rejection invalid on its face, but it also defies public policy for promoting technological advancements. Applying the Examiner's own rationale, no invention would ever be deemed patentable because one could always make the argument that it is impossible to predict whether a skilled artisan would develop a later-arising technology. For example, in *In re Hogan*, 559 F.2d 595, 194 U.S.P.Q. 527 (CCPA 1977), the PTO rejected claims for lack of enablement after concluding that, in

view of later-arising technology, the claims were broad enough to embrace certain later-arising embodiments that were not enabled by the application. The Court of Customs and Patent Appeals reversed the PTO, holding that it was enough that the application enabled the claims as construed in light of the state of the art at the time of filing. *Hogan*, 559 F.2d at 606; 194 U.S.P.Q. at 540. As the court explained, "the use of a subsequently-existing improvement to show lack of enablement in an earlier-filed application on the basic invention would preclude issuance of a patent to the inventor of the thing improved, and in the case of issued patents, would invalidate all claims ... therein." *Hogan*, 559 F.2d at 606, 194 U.S.P.Q. at 538.

In the present case, the Examiner attempts the revive, under the guise of a written description rejection, the PTO's disturbing position in *Hogan*. This attempt is most certainly as improper now as it was at the time of *Hogan*, and the rejections should be reversed.

VIII. CONCLUSION

Wherefore, Appellant prays that the Honorable Board reverse the outstanding final rejection.

Respectfully submitted,

Seplember 2, 2005

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and Applicant hereby petition for any needed extension of time.

CLAIMS APPENDIX [37 C.F.R. § 41.37(C)(1)(VIII)]

1. An African Violet plant comprising at least one leaf axil that produces more than

one flower stem.

2. The African Violet plant of claim 1 wherein the leaf axil produces at least 3

flower stems.

3. The African Violet plant of claim 1 wherein the leaf axil produces at least 4

flower stems.

4. Not Appealed.

5. A method of producing an African Violet plant having at least one leaf axil with

more than one flower stem and a second desirable trait, the method comprising the steps

of crossing, as the male or female parent, a first African Violet plant that has at least one

leaf axil with more than one flower stem, with a second African Violet plant having a

second desirable trait but only 1 flower stem on any leaf axil, and selecting progeny that

have at least one leaf axil with more than one flower stem and the second desirable trait.

6. The method according to claim 5, wherein the second desirable trait is selected

from the group consisting of flower color, leaf color, disease resistance, leaf size and

growth habit.

7. African Violet seeds produced by the method of claim 5, wherein the seeds

produce a plant comprising at least one leaf axil that has more than one flower stem.

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8. A method of increasing the number of flower stems per leaf axil in a African

Violet plant comprising the steps of crossing a first plant that exhibits the

multiflorescence trait with a second plant that exhibits the multiflorescence trait and
selecting progeny from the cross that produce more flower stems per leaf axil than either
parent.

EVIDENCE APPENDIX [37 C.F.R. § 41.37(C)(1)(ix)]

The following pages contain the following documents:

Exhibit A: Declaration under 35 U.S.C. § 1.132, filed November 23, 2003 (2 pages).

Exhibit B: U.S. Patent No. 5,684,225, issued November 4, 1997 (40 pages).

RELATED PROCEEDINGS UNDER [37 C.F.R. § 41.37(C)(1)(X)]

Not Applicable. There are related proceedings.

Group Art Unit: 1661



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In repatent application of

Reinhold HOLTKAMP, Sr.

Serial No. 10/046,968 Examiner: W. Haas

Filed: January 17, 2002

For: MULTIFLORESCENCE TRAIT IN AFRICAN VIOLETS

DECLARATION UNDER 35 U.S.C. § 1.132

I, Richard Peet, the attorney of record in the present application, declare that at least 2500 seeds from the cross of African Violet 'SB 4-2 Muflo' with African Violet'P6/6' were deposited on January 16, 2002 at the American Type Culture Collection (ATCC) (10801 University Blvd., Manassas, VA, a Budapest Treaty recognized depository which affords permanence of the deposit, and accorded ATCC Accession No. PTA-3982. A copy of the deposit receipt is enclosed for convenience.

I confirm that the deposited seeds are specifically identified in this application as filed. I further confirm that during the pendency of the patent application access to the deposited seeds will be allowed to those persons properly designated by the Commissioner of Patents and Trademarks; that the deposited seeds will be replaced should it die or be destroyed during the enforceable life of any patent issued out of this patent application, for five years after the last request for a sample of the deposited seeds or for thirty years, whichever is longer; that upon issuance of a patent, applicant will irrevocably remove all restrictions to access to the seeds for the duration of the deposit; and that maintenance charges for the duration of the deposit will be paid.

November 3, 2003

Richard C. Peet

Attorney for Applicant Registration No. 35,792



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BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSES OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT ISSUED PURSUANT TO RULE 7.3 AND VIABILITY STATEMENT ISSUED PURSUANT TO RULE 10.2

To: (Name and Address of Depositor or Attorney)

Reinhold Holtkamp 6011 Martingale Lane Brentwood, Tennessee 37027

Deposited on Behalf of: International Plant Breeding AG. Koenizstrasse 230 CH-3097 Liebefeld SWITZERLAND

Identification Reference by Depositor:

Patent Deposit Designation

Date: February 11, 2003

Saintpaulia Ionantha-"African Violet": SB4-2/P6-6 muflo

PTA-3982

The seeds were accompanied by: _ a scientific description a proposed taxonomic description indicated above. The seeds were received January 16, 2002 by this International Depository Authority and have been accepted.

AT YOUR REQUEST: X We will inform you of requests for the seeds for 30 years.

The seeds will be made available if a patent office signatory to the Budapest Treaty certifies one's right to receive, or if a U.S. Patent is issued citing the seeds and ATCC is instructed by the United States Patent & Trademark Office or the depositor to release said seeds.

If the seeds should die or be destroyed during the effective term of the deposit, it shall be your responsibility to replace them with viable seeds of the same.

The seeds will be maintained for a period of at least 30 years from date of deposit, or five years after the most recent request for a sample, whichever is longer. The United States and many other countries are signatory to the Budapest Treaty.

The viability of the seeds cited above was tested January 20. 2003. On that date, the seeds were viable.

International Depository Authority: American Type Culture Collection, Manassas, VA 20110-2209 USA.

Signature of person having authority to represent ATCC:

Marie Harris, Patent Specialist, ATCC Patent Depository

cc: Richard C. Peet